NOTES ON THE LISTROPHORIDAE (ACARINA: SARCOPTOIDEA).

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Dr. R. F. Lawrence, of the Natal Museum, recently pointed out in a personal communication that the mite described by me (1940) as *Labidocarpus buloloensis* had unique features warranting the erection of a new genus to accommodate it. Under the stimulus of Dr. Lawrence's interest, I made a wider study of the Listrophorid genera, and reached the conclusion that there are enough genera, divided naturally into groups which are sufficiently distinct, to justify the subdivision of the family into four new subfamilies. The division suggested here has been based on the style of attachment adopted by the various genera. This means that any individual specimen can be assigned to its correct subfamily with the minimum of trouble, merely by a rapid inspection of the maxillae and legs, which are prominent and easily found. The following key, which is based on that of Ewing, but which adopts a different starting point, indicates quite clearly the relationship between the proposed new subfamilies, and the salient features of each of them:

Key to the Subfamilies and Genera of the Listrophoridae.

1. Legs i and ii modified as claspers 2
   Legs iii and iv modified as claspers ..... Myocoptinae, n. subfam. (Type genus, *Myocoptes*) .. 8
   Maxillae modified as claspers ..... Listrophorinae, n. subfam. (Type genus, *Listrophorus*) .. 9
2. Legs i and ii provided with caruncles; not very highly modified. Sometimes with accessory claspers ..... Atopomelinae, n. subfam. (Type genus, *Atopomelus*) .. 3
   Legs i and ii without caruncles; highly modified. Without any accessory claspers ..... Labidocarpinae, n. subfam. (Type genus, *Labidocarpus*) .. 5
3. Body depressed. Sternal region between legs ii and iii provided with a pair of clamshell-shaped accessory claspers. Legs iv of male enormous ..... *Atopomelus* Trouessart
   Body compressed. Sternal region not provided with claspers. Legs iv of male normal .. 4
4. Body much broader than high. Type species from Africa ..... *Listrophoroides* Hirst
   Body but slightly broader than high. Type species from Tasmania ..... *Campylochirus* Trouessart (= *Chirodiscoides* Hirst)
5. Body depressed 6
   Body compressed 7
6. Legs i and ii greatly broadened distally into a truncated-shovel shape ..... *Schizocarpus* Trouessart (= *Haptosoma* Kramer)
   Legs i and ii of about the same width for most of their length; flattened, curved, and pointed distally ..... *Chirodiscus* Trouessart and Neumann
7. Legs iii and iv short and stumpy; without caruncles; composed of three segments; almost vestigeal ..... *Labidocarpus* Trouessart (= *Alabidocarpus* Ewing)
   Legs iii and iv long and slender; provided with caruncles; composed of five segments; doubled forward beneath the abdomen ..... *Neolabidocarpus*, n. gen.
8. Legs iii and iv similar in both sexes, and ending in a hard transverse disc ..... *Trichoecius* Canestrini (= *Trichobius* Canestrini; *Trichoecus* Ewing)
   Legs iii and iv dissimilar in the two sexes; not ending in a transverse disc ..... *Myocoptes* Claparede
9. Coxae of legs iii separate ..... *Listrophorus* Pagenstecher
   Coxae of legs iii dilated and fused together ..... *Euryzonus* Trouessart

Genus Neolabidocarpus, n. gen.

Characters as in the key above.

Type species: *Labidocarpus huloloensis* Gunther 1940 (Proc. Linn. Soc. N.S.W., lxv, p. 353).

Type host and locality: Scrub wallaby, *Macropus* (*Thylogale*) *coxeni* Gray 1866; Territory of New Guinea.

Genus Labidocarpus Trouessart 1895.

Ann. Soc. ent. Fr., lxiv, Bull., xxxviii.

It is extremely doubtful whether Ewing's separation of *Alabidocarpus** from *Labidocarpus* on the strength of very minor differences in the spurs on legs iii was justifiable. If it was, then *Labidocarpus nasicolus* Lawrence would join *L. minor* Trouessart, *L. megalonyx* Trouessart and *L. compressus* Ewing in the former genus, leaving only *L. rollinati* Trouessart in the parent genus. As all of these species are parasitic on bats—and three of them on the one species of bat—it seems to the writer that it is far better to re-include them in the one genus, making *Alabidocarpus* a synonym of *Labidocarpus*, as has been done in the above key.

Dr. Lawrence, on checking this paper for me, suggested that a list giving the distribution and hosts would be useful, and generously provided much information, for which I am glad to acknowledge my gratitude.

Distribution and Hosts of the Listrophoridae.

I. Listrophorinae:		
1. *Listrophorus*:	Rabbits, mice, rats, ferrets, muskrats, squirrels.	Europe, North America, Egypt, South Africa.
2. *Euryzonus*:	Rodent (*Sigmodon*).	Northern Brazil.
II. Myocoptinae:		
3. *Myocoptes*:	Mice, dormice, rats.	Europe.
4. *Trichoecius*:	Mice.	Europe.
III. Atopomelinae:		
5. *Atopomelus*:	Insectivore (*Neotetracus sinensis*), guinea pigs, squirrels.	Western China, America.
6. *Listrophoroides*:	Rodents.	West Africa, Orange Free State.
7. *Campylochirus*:	Phalanger.	Tasmania.
IV. Labidocarpinae:		
8. *Labidocarpus*:	Bats.	Europe, Ceylon, South Africa.
9. *Schizocarpus*:	Beaver.	North America.
10. *Chirodiscus*:	Beavers and marsupials.	North America.
11. *Neolabidocarpus*:	Wallaby.	New Guinea.

* A Manual of External Parasites, 1929, 44, 188.